

Two new species of Thyrididae from Madagascar (Insecta Lepidoptera)

by Paul E. S. WHALLEY *

Résumé. — Descriptions de deux nouvelles espèces de Thyrididae provenant de Madagascar.

Through the kindness of Dr P. VIETTE, Paris, I have been able to examine three Madagascan Thyridid specimens which were not included in my recent revisions (WHALLEY, 1967, 1971). Two new species are described on the basis of this material. The new species are placed in their taxonomic position in relation to these previous studies.

The first species fits exactly into the diagnosis of *Chrysotypus* Butler (WHALLEY, 1967, 1971) but its exact relationship within the genus is not so certain. *Chrysotypus maculatus* Viette is somewhat similar externally, but is still known only from the female whereas the new *Chrysotypus* specimen is a male. It is possible that *C. maculatus* is sexually dimorphic but there are a number of features in the new specimen (e.g. wing shape, pattern) which make me reasonably sure it is not the male of *C. maculatus*.

The second new species is distinct externally from *Rhodoneura translucida* Viette, which it otherwise resembles in general pattern and colour. Only females are known but the signum structure is characteristic of this group (WHALLEY, 1971 : 85). While the African and Madagascan species of *Rhodoneura* are reasonably well known, there is little information on this large genus outside this area.

Wing measurements are taken from the apex of the forewing to the centre of the mesothorax.

***Chrysotypus enigmaticus* sp. n.**

(Fig. 1, 3, 4)

Thyrididae, Argyrotypinae, see WHALLEY, 1971 : 15.

♂, Wing, 18 mm. Crown brown and white, scales long. Antennae strongly bipectinate. Eyes without interfacetal hair. Labial palp short, three-segmented, barely reaching frons. Ocelli and chaetosema absent. Proboscis absent. Thorax with long

* *Department of Entomology, British Museum (Natural History), London SW7 5BD.*



FIG. 1 et 2. — 1, *Chrysotypus enigmaticus* n. sp., ♂, holotype ; 2, *Rhodoneura (Isothauma) vietlealis* n. sp., ♀, holotype.

brown and white scales. Abdomen reddish brown, without tympanal organ. Legs damaged. Forewings, pattern as in figure 1, dark reddish brown with translucent oval areas. Veins $R_4 + R_5$ stalked. Hindwings similar. Underside similar, paler colour. Some white scales along the costal margin under forewing. Frenulum single. $Se + R_1$ and R_s in hindwing approach closely but do not touch. Genitalia ♂ (fig. 3 and 4) : Uneus pointed, flattened laterally. Gnathus absent. Juxta Y-shaped with two prominent triangular lobes. Valves broad, short digitate process near apex of sacculus on valve. Aedeagus strongly bifid, lateral process with broadly expanded apex.

♀ unknown.

DISCUSSION

It is unfortunate that the legs of this specimen are lost. One of the useful diagnostic characters of *Chrysotypus* is the number and position of the hind tibial spurs (WHALLEY, 1971 : 36). The genitalia are typical of species of *Chrysotypus*. The lobes of the juxta

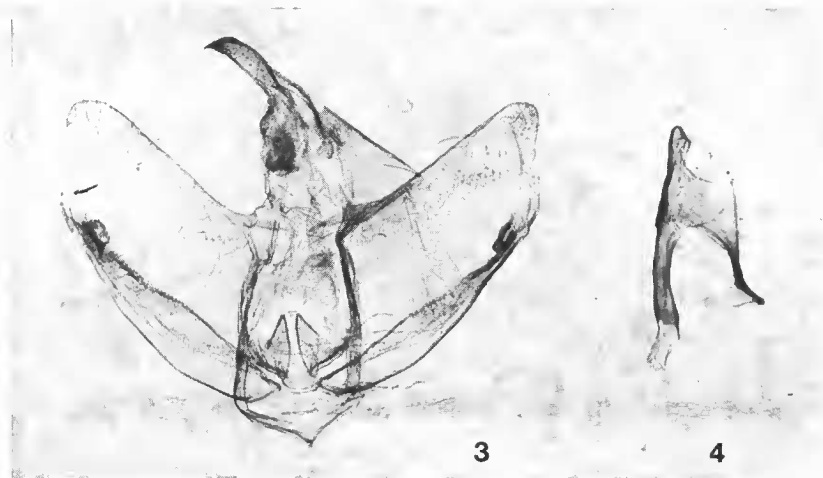


FIG. 3 et 4. — *Chrysotypus enigmaticus* n. sp., ♂, holotype : 3, armure génitale ; 4, pénis.

are similar to *C. cupreus* Kenrich but that species lacks the Y-shaped additional part of the juxta. From all the currently recognised species of *Chrysotypus*, *C. enigmaticus* can be separated by its pattern. In the genitalia the digitate process on the valve near the apex of the saeculus is broader and more pronounced than in the other Madagasean species and the aedeagus has a very prominent lateral process giving a strongly bifid appearance. This confirms the comment that the Madagasean species have developed this lateral process more strongly than the closely related species from the African mainland (Whalley, 1971 : 35).

DISTRIBUTION : Madagascar.

BIOLOGY : Unknown. Adult collected in November.

MATERIAL EXAMINED : Holotype ♂, MADAGASCAR EST, massif du Marojejy (réserve naturelle intégrale n° 12), 2 050 m, 25/30-XI-1972 (A. Peyrieras) (BM slide n° 15207) (Muséum national d'Histoire naturelle, Paris).

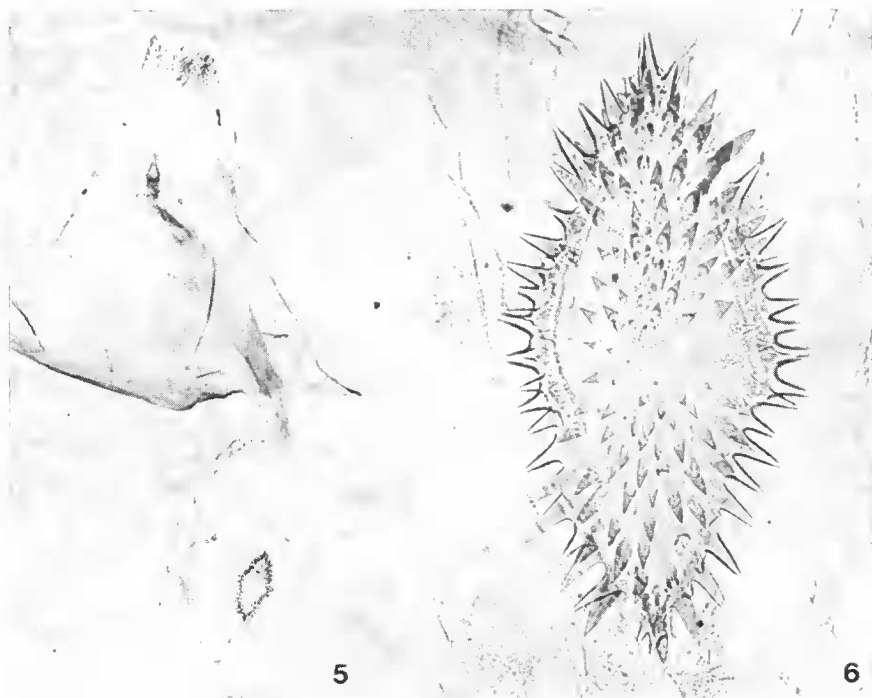


FIG. 5 et 6. — *Rhodoneura (Isothauma) viettealis* n. sp., ♀, holotype : 5, armure génitale ; 6, signum.

***Rhodoneura (Isothauma) viettealis* sp. n.**

(Fig. 2, 5, 6)

Thyrididae, Sieulinae, Rhodoneurini, see Whalley, 1971 : 16.

Rhodoneura Guenée, subgenus *Isothauma* Warren, see Whalley, 1971 : 85.

♀, Wing, 15 mm. Vertex white with black edges between antennae. Chaetosema and ocelli absent. Antennae simple, not ciliate. Labial palp three-segmented, third segment $\frac{3}{4}$ length of second, projecting well in front of head. Proboscis present. Thorax

white. Tegulae white with dark brown base. Abdomen brown and white, tympanal organ absent. Fore tibia with epiphysis, hind tibia with two pairs of spurs, outer spur of distal pair three times length of inner spur. Forewing, pattern as in figure 2, silvery white with yellow-brown pattern. Veins R_2 to R_5 from cell. Hindwing, similar colour to forewing, $Sc + R_1$ and Rs touch. Genitalia ♀. Anal papillae short. Ostium lightly sclerotised. First part of duct narrow, rest broad. Bursa with large spiny signum (fig. 5 and 6).

♂ unknown.

DISCUSSION

From *R. (I). translucida* Viette, which this species resembles, it can be separated by the broader median band (thin in *translucida*) on the fore and hind wings. The signum of *R. viettealis* is more rounded but the two species are broadly similar and closely related. Their relationship is such that they can be considered as sister species, with apomorphous characters such as pattern and colour, recently derived from a common ancestor. From the mainland species *R. serraticornis* Warren they can be separated by the pattern on the wing and the shape of the signum but here again a close overall similarity in pattern and general morphology is apparent. The pattern of *R. viettealis* occurs in a number of unrelated species of Thyrididae on different continents. No field observations are available on any of these species to suggest the function of the pattern.

DISTRIBUTION : Madagascar.

BIOLOGY : Unknown. Adults collected in January.

MATERIAL EXAMINED : Holotype ♀, MADAGASCAR SUD, plateau Mahafaly, Ankalirano, I-1966 (*P. Griveaud*) (BM slide n° 10798) (Muséum national d'Histoire naturelle, Paris). — Paratype, MADAGASCAR SUD, 1 ♀, data as type, in British Museum (Natural History).

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